

January 14, 2016

Kristine Koch  
U.S. Environmental Protection Agency, Region 10  
1200 Sixth Avenue, Suite 900, M/S ECL-115  
Seattle, WA 98101

JAN 19 2016

**Re: Lower Willamette River, Portland Harbor Superfund Site  
USEPA Docket No: CERCLA-10-2001-0240  
Monthly Progress Report for December 2015**

Dear Ms. Koch:

This monthly status report provides information required by the Portland Harbor Superfund Site Administrative Settlement and Administrative Order on Consent (ASOC).

**1. ACTIONS TAKEN IN DECEMBER 2015**

- None.

**Deliverables Approved by EPA**

- None.

**Deliverables Submitted to EPA and Other Actions**

- On December 3, 2015, the LWG provided feedback on EPA's November 25, 2015, summary of the November 24, 2015 call with EPA to discuss the status of the LWG September 8, 2015 Feasibility Study (FS) information requests.
- On December 3, 2015, a meeting was held with EPA to discuss EPA's technology decision trees and assignments.
- On December 4, 2015, the LWG provided EPA additional explanation of the LWG September 8, 2015 FS information request numbers 6, 7, and 40.

**Comments/Documents Provided by EPA**

- On December 4, 2015, EPA provided the materials presented by EPA during the November 18, 2015 meeting with EPA, the Contaminated Sediments Technical Advisory Group (CSTAG), and the Nation Remedy Review Board (NRRB).
- On December 14, 2015, EPA provided information in response to the LWG's September 8, 2015, FS information request number 33.
- On December 14, 2015, EPA provided clarification regarding EPA's response to the LWG's September 8, 2015 FS information request number 7.

**2. PROBLEMS ENCOUNTERED, ANTICIPATED DELAYS, AND SOLUTIONS**

- None.

**3. RESULTS OF SAMPLING, TESTS, AND OTHER DATA RECEIVED**

- None.

**4. SCHEDULE FOR THE NEXT FOUR MONTHS**

The LWG project team will continue to coordinate with the EPA Remedial Project Managers to finalize the Remedial Investigation (RI) report and assist EPA as requested in the review and revision of EPA's Draft Final FS.

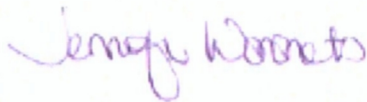
Submittal dates for pending documents currently under preparation by the LWG and scheduled for submittal in upcoming months are listed in Table 1: Status of Active LWG Deliverables—Portland Harbor RI/FS. This table includes pending and recently submitted deliverables for which EPA comments or approvals are required. Table 2: Status of LWG Deliverables—Portland Harbor RI/FS reflects the more complete list of LWG submittals and is equivalent to the former Table 1 provided in previous progress reports.

**5. DOCUMENTS AND ISSUES AWAITING EPA RESPONSE**

EPA comments or approvals have not been received on a number of documents that have been submitted to EPA as required by the ASOC; these submittals are listed in Tables 1 and 2. The LWG requests that EPA provide document approvals for these submittals to verify that the terms of the ASOC are being met and issues are resolved to maintain progress on the RI/FS. Also, the LWG believes that many of the documents listed as future submittals in Table 2 are no longer needed (see Status/Comments column) and requests that EPA review the list and confirm that these documents are, indeed, not needed.

If you have any questions, please give me a call at (503) 972-5014.

Sincerely,



Jennifer Woronets  
LWG Administrative Project Coordinator

**Copies:**

- ODEQ (email only)
- NOAA (email only)
- Confederated Tribes of Warm Springs (email only)
- Confederated Tribes of Yakama Nation (email only)
- Confederated Tribes of Siletz (email only)
- Confederated Tribes of Umatilla (email only)
- Grand Ronde (email only)
- Nez Perce Tribe (email only)



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LWG Management  
LWG Repository

**Table 1. Status of Active LWG Deliverables – Portland Harbor RI/FS.**

<b>Deliverable<sup>1</sup></b>	<b>Submittal Deadline<sup>2</sup></b>	<b>Status/Comments</b>	<b>EPA Comments Target Date</b>
<b>None.</b>			

Notes:

<sup>1</sup> - **Bolded Deliverables** are primary deliverables per Section XIX, Paragraph 4 of ASOC (EPA 2001a).

Unbolded Deliverables are secondary deliverables per Section XIX, Paragraph 5 of ASOC.

*Italicized Deliverables* do not have stipulated penalty amounts.

<sup>2</sup> - Listed Submittal Deadlines are for draft documents. Unless otherwise specified, all final documents are due to EPA 30 days following receipt of comments from EPA.

Deliverable completed and approved by EPA.

Deliverable submitted to EPA and its partners.

Underlining indicates text change from last progress report.



**Table 2. Status of LWG Deliverables – Portland Harbor RI/FS.**

<b>Deliverable<sup>1</sup></b>	<b>Submittal Deadline<sup>2</sup></b>	<b>Status/ Comments</b>	<b>EPA Comments Target Date</b>
<b>Round 1</b>			
<i>Compilation of Information for Sources Between RM 11 and 11.6 East Bank of Portland Harbor</i>	November 2007	Submitted to EPA and DEQ 11/21/2007. Need written response from DEQ and EPA that upland sources are under investigation consistent with the Road to the ROD.	
<b>Round 2 Biota</b>			
<i>Revised Round 2 QAPP Addendum 6: Sampling of Benthic Invertebrate Tissue</i>	11/23/2005	Submitted 11/23/2005; approved with conditions on 12/6/2005; a final QAPP addendum is required	12/8/2005
<i>Final Round 2 QAPP Addendum 6: Sampling of Benthic Invertebrate Tissue</i>	TBD	On 2/9/2006, the LWG submitted a response to EPA's comments on the 11/23/2005 version of the QAPP addendum. The LWG has not heard back from EPA on that response. The LWG believes that a final QAPP is not required. Need EPA agreement that this final QAPP is not required.	
<b>Hydro/Sed Modeling</b>			
<i>Phase 2 Hydrodynamic Re-calibration Report</i>	May 2009	Submitted 5/7/2009; EPA comments received 7/22/2009	
<b>Groundwater Pathway</b>			
<i>Draft Round 2 Groundwater Pathway Assessment Sampling and Analysis Plan</i>	4/22/2005	Submitted 4/22/2005; EPA comments received 6/3/2005	
<i>Round 2 Groundwater Pathway Assessment Sampling and Analysis Plan - Response to EPA Comments</i>	TBD	Outstanding issues to be addressed in GW Appendix to Draft RI Report.	
<i>Revised Round 2 Groundwater Pathway Assessment Sampling and Analysis Plan (including Appendix A - Site Summaries and Appendix B - Pilot Study Data Report)</i>	TBD	Outstanding issues to be addressed in GW Appendix to Draft RI Report.	
<i>Round 2 FSP for Sampling of Shoreline Seeps at Human Use Beaches</i>	4/29/2005	Submitted 4/29/2005; EPA comments received 6/10/2005	



<b>Deliverable<sup>1</sup></b>	<b>Submittal Deadline<sup>2</sup></b>	<b>Status/ Comments</b>	<b>EPA Comments Target Date</b>
<i>Revised Round 2 FSP for Sampling of Shoreline Seeps at Human Use Beaches</i>	No longer needed	The only seep determined to pose a potentially complete exposure pathway is discharge from Outfall 22B. The existing data from Outfall 22B include the upland COIs and meet the data quality requirements for risk evaluation (Category 1/QA2). Based on the Round 2 Report evaluations, no additional seep data are needed. Therefore, this FSP is no longer needed.	
<i>Revised Round 2 Groundwater Pathway Assessment SAP Attachment 2: Transition Zone Water FSP</i>	3/27/2006	Redline version submitted 3/27/2006; EPA needs to provide final approval of this FSP. This revised FSP was prepared and submitted after the associated field work was completed.	4/28/2006
<i>Revised Round 2 Groundwater Pathway Assessment SAP Attachment 3: Supplement to QAPP Addendum 3</i>	10/7/2005	Submitted 10/7/2005: Conditional approval of proposed changes to the QAPP addendum received from EPA on 9/30/2005. EPA needs to provide final approval of this QAPP. Approval to conduct sampling was provided by EPA on 9/30/2005.	
<i>Revised Transition-Zone Water FSP Addendum 1 Sampling Plans for ExxonMobil, Siltronic, Gasco, and Arkema</i>	3/27/2006	Submitted 3/27/2006. EPA needs to provide final approval of this FSP. Approval to conduct sampling was provided by EPA on 9/30/2005. This revised FSP was prepared and submitted after the associated field work was completed.	
<i>Revised Transition-Zone Water FSP Addendum 2</i>	3/27/2006	Submitted 3/27/2006. EPA needs to provide final approval of this FSP. Approval to conduct sampling was provided by EPA on 10/13/2005. This revised FSP was prepared and submitted after the associated field work was completed.	
<b>Natural Attenuation</b>			
<i>Step 2 Natural Attenuation Evaluation Report</i>	No longer needed		
<b>Tech Memos</b>			
<b>Revised TRV Selection TM</b>	10/23/2004	Submitted; EPA comments received 3/18/2005. On 6/10/2005, EPA directed the LWG to submit the final TRV Selection TM with the PRE. The final TRV Selection TM was submitted as an appendix to the 9/9/2005 PRE.	



<b>Deliverable<sup>1</sup></b>	<b>Submittal Deadline<sup>2</sup></b>	<b>Status/ Comments</b>	<b>EPA Comments Target Date</b>
<b>Second Revision Preliminary Risk Evaluation Approach TM</b>	1/7/2005	Submitted; EPA comments received 3/4/2005. On 6/10/2005, EPA directed the LWG to submit the final PRE approach TM with the PRE. The final PRE Approach was submitted as an appendix to the 9/9/2005 PRE.	
<b>Comprehensive ERA Approach TM</b>	6/27/2004	Submitted; EPA comments received 10/1/2004	
<b>Revised Comprehensive ERA Approach TM</b>	TBD	In a 1/11/2006 meeting with EPA, the LWG proposed deleting this deliverable. The LWG has not heard back from EPA on this proposal. Need EPA agreement that this deliverable is no longer needed.	
<b>Process for Derivation of PRGs TM</b>	1/20/2005	Submitted; EPA comments received 6/30/2006; a revised tech memo is not required.	3/21/2005
<i>Draft Approach to Determining Background for the Portland Harbor Superfund Site</i>	3/3/2006	Submitted 3/3/2006; EPA comments received 6/5/2006; revised tech memo required.	5/2/2006
<i>Revised Approach to Determining Background for the Portland Harbor Superfund Site</i>	7/20/2006	The revised approach to determining background for the Portland Harbor Superfund Site will be provided in the Draft RI Report	
<i>Process for Delineating the Extent of Contamination Upstream and Downstream of the ISA</i>		The approach for Delineating the Extent of Contamination Upstream and Downstream of the ISA will be provided in the Draft RI Report	
<i>COPC Selection Interim Deliverable</i>	~1/23/2006	In a 1/11/2006 meeting with EPA, the LWG proposed deleting this deliverable. The LWG has not heard back from EPA on this proposal. Need EPA agreement that this deliverable is no longer needed.	
<b>ECOLOGICAL RISK ASSESSMENT</b>			
<b>Ecological Preliminary Risk Evaluation (PRE)</b>	9/9/2005	Submitted 9/9/2005; EPA comments received 4/28/2006, a revised PRE is not required	11/8/2005
<i>Round 2 Benthic Assessment Interpretation Report</i>	3/17/2006	Submitted 3/17/2006; EPA comments received 7/6/2006	5/16/2006
<i>Food Web Modeling Report: Evaluating Trophic Trace and the Arnot and Gobas Models for Application to the Portland Harbor Superfund Site</i>	11/4/2005	Submitted 11/4/2005; EPA comments received 3/10/2006	1/3/2006



<b>Deliverable<sup>1</sup></b>	<b>Submittal Deadline<sup>2</sup></b>	<b>Status/ Comments</b>	<b>EPA Comments Target Date</b>
<i>Revised Ecological Water Screening Levels</i>	5/26/2006	Submitted 5/25/2006; directive EPA comments received 9/15/2006, and a correction to the xylene AWQC on 9/27/06. Additional revisions were submitted on 10/13/2006.	7/9/2006
<b>Feasibility Study</b>			
Literature Survey of Treatability Studies	October 2007	Submitted 10/31/2007. EPA comments received 2/15/08. A revised deliverable is not required, EPA comments indicated that they should be addressed in the FS.	Jan-08
<i>Round 3B (FS) Side-scan Sonar Data Report</i>	September 2008	Submitted 5/18/2009	
<i>Treatment Technologies Screening Table</i>	Early May 2009	Submitted 6/5/2009; EPA comments received 7/9/2009	7/6/2009
<i>Screening of Disposal Facilities for the Feasibility Study Memorandum</i>	Mid May 2009	Submitted 6/18/2009; EPA comments received 7/10/2009	7/2/2009
<i>Early Preliminary Remediation Goals (PRGs)</i>	Late March 2009	Submitted 3/27/2009	
<i>Benthic Toxicity AOPCs Check In Materials</i>	September 2010	Submitted 9/07/2010	
<i>Treatment Technology Evaluation Tools Memo</i>	-	Submitted 03/15/2011; EPA comments received 4/27/2011	
<i>Draft Mitigation Determination Approach for Use in the FS Tools Memo</i>	-	Submitted 03/15/2011; EPA comments received 4/27/2011	
<i>Draft Feasibility Study Costing Approach Tools Memo</i>	-	Submitted 03/15/2011; EPA comments received 4/27/2011	
<i>Draft Identification of "COCs" and Contaminant Mobility Evaluation Criteria For the Draft FS Tools Memo</i>	-	Submitted 03/16/2011; EPA comments received 4/27/2011	
<i>Dredging Water Quality Evaluation Tools Memo</i>	-	Submitted 03/31/2011; EPA comments received 4/27/2011	
Alternatives Screening Materials		Submitted 04/06/2011	
Draft FS Key Elements Presentation	-	Submitted Materials 06/06/2011 Presentation 06/21 and 06/22/2011	
<i>EPA Directed Draft Feasibility Study (FS) Key Work Product</i>	01/15/2012	Submitted 01/16/2012	NA



Deliverable <sup>1</sup>	Submittal Deadline <sup>2</sup>	Status/ Comments	EPA Comments Target Date
<i>Derivation of Final Manganese PRG to Replace the Suter and Tsao (1996) Tier II Value in the Portland Harbor Feasibility Study Memo</i>		Submitted 8/01/2014 EPA comments received 10/23/2014 Revised version submitted to EPA 10/29/2014 EPA comments received 11/04/2014 Revised version submitted to EPA 11/05/2014 Final memo submitted 11/12/2014 EPA approval received 7/07/2015	9/1/2014
<b>Draft Feasibility Study (FS) - Electronic Version For Early EPA Team Review</b>	03/20/2012	Submitted 03/20/2012 EPA draft FS Section 1 received 07/08/14 EPA Draft Final FS Section 1 and Appendix A received on 12/18/14 EPA draft FS Section 2 received 2/23/15 EPA revised draft FS Section 1 and 2 received 6/2/15 EPA revised draft FS Section 2 and draft Section 3 received 7/29/15 EPA draft FS Section 4 received 8/18/2015	6/29/2012
<b>Draft Feasibility Study (FS) - Formal Publically Accessible Submittal</b>	03/30/2012	Submitted 03/30/2012 EPA initial comments received 12/18/2012. EPA draft FS Section 1 received 07/08/14 EPA Draft Final FS Section 1 and Appendix A received on 12/18/14 EPA draft FS Section 2 received 2/23/15 EPA revised draft FS Section 1 and 2 received 6/2/15 EPA revised draft FS Section 2 and draft Section 3 received 7/29/15 EPA draft FS Section 4 received 8/18/2015	6/29/2012
<b>General Field/Data/RI Reporting</b>			
<i>Validated Analytical Results</i>	90 days following completion of each sampling activity		



<b>Deliverable<sup>1</sup></b>	<b>Submittal Deadline<sup>2</sup></b>	<b>Status/ Comments</b>	<b>EPA Comments Target Date</b>
Comprehensive Round 2 Site Characterization Summary and Data Gaps Analysis Report	2/21/2007	Submitted 2/21/2007. EPA comments on Sections 1-9 and Appendices A, B, C, D, F, and G received 1/15/08; comments on Section 10 received 3/20/08; comments on Section 11 received 5/16/08; comments on Appendix E received 8/8/08. This document was never intended to be revised or approved by EPA; comments will be addressed in the Draft RI Report.	
<i>Draft Sediment Mobility Testing Data Report</i>	August 2009	Submitted 8/11/2009	EPA comments not anticipated
<b>Draft Baseline Ecological Risk Assessment Report</b>	Early September 2009	Submitted 9/2/2009 Preliminary EPA comments received 12/23/09. EPA comments received 07/16/2010. EPA benthic approach comments received 09/27/2010.	11/2/2009
<b>Draft Baseline Human Health Risk Assessment Report</b>	Late September 2009	Submitted 9/23/2009 Preliminary EPA comments received 12/23/09. EPA comments received 07/16/2010.	11/23/2009
<b>Draft Remedial Investigation Report</b>	Late October 2009	Submitted 10/27/2009 EPA comments received 07/16/2010	12/27/2009
<i>Benthic Toxicity Reanalysis Technical Memorandum</i>	Mid November 2009	Submitted 11/13/2009 EPA benthic approach comments received 09/27/2010.	01/13/2009
<i>Supporting Electronic Information for Draft Benthic BERA</i>	November 2009	Submitted 11/19/2009	01/19/2010
<b>Draft Final BHHRA</b>	5/2/2011	Submitted 05/02/2011; EPA comments received 06/22/2012. EPA dispute decision received 12/07/12.	7/2/2011
<b>Draft Final BERA</b>	7/5/2011	Submitted 07/01/2011; EPA comments received 07/10/2012. EPA comments received on 12/21/2012. EPA comments received on 01/11/2013	9/1/2011
Human Health and Ecological Risk Management Recommendations	July 2011	Submitted 07/22/2011	9/22/2011



Deliverable <sup>1</sup>	Submittal Deadline <sup>2</sup>	Status/ Comments	EPA Comments Target Date
Draft Final Remedial Investigation Report	8/29/2011	Submitted 08/29/2011; EPA comments received on Section 1 and 2, Appendices A and H 11/30/2012 EPA comments received on Section 3 02/21/2013 EPA comments received on Section 4 03/19/2013 EPA comments received on Section 8 04/19/2013 EPA comments received on Section 9 8/16/2013 Revised Redline of EPA comments received on Section 9 9/26/2013 EPA comments received on Section 7 11/05/2013 Additional EPA comments received on Section 7 12/19/2013 EPA comments received on Section 6 05/07/2014 EPA comments received on Section 5 6/11/14 EPA comments received on Section 10 and 11 7/10/2014 EPA comments received on the Executive Summary 01/13/2015 EPA comments and direction to produce draft final RI received 4/27/15 <u>LWG submitted electronic version of Draft Final RI 06/12/15</u>	10/29/2011
Final BHHRA	3/28/2013	Submitted: 02/11/2013 EPA comments received 02/15/2013 EPA conditional approval received on 02/26/2013. Final BHHRA posted and hardcopy submitted 03/25/13. EPA provided final approval of the BHHRA on 04/03/13 Final BHHRA errata posted 04/12/13.	4/8/2013



<b>Deliverable<sup>1</sup></b>	<b>Submittal Deadline<sup>2</sup></b>	<b>Status/ Comments</b>	<b>EPA Comments Target Date</b>
<b>Final BERA</b>	4/1/2013	Submitted: 04/01/2013; EPA comments received 06/07/13; Revised draft submitted to EPA 06/14/13 EPA comments received 06/26/13 EPA comments received 09/26/13 Further revised draft submitted to EPA 10/10/13 Further revised draft submitted to EPA 12/16/13 EPA provided final approval of the BERA with the exception of Attachment 1 Part B Communication Log on 12/20/13	4/15/2013
<b>STORMWATER</b>			
<i>Stormwater Loading Check-in Materials</i>	2/1/2009	Submitted 2/18/2009; EPA comments received 5/6/2009	
<i>Revised Stormwater Loading Calculation Methods</i>	April 2010	Submitted 04/30/2010; EPA comments received 08/17/2010	6/30/2010
<i>Final Stormwater Loading Calculation Methods</i>		Submitted 01/31/2011; EPA comments received 03/02/2011 Revised Report Submitted 04/15/2011	3/31/2011
<b>SEDIMENT</b>			
<i>Round 3B Field Sampling Plan: Sediment Sampling and Benthic Toxicity Testing</i>		Submitted 5/4/2007; EPA comments received 7/25/07. Superseded by the 11/5/2007 R3B Comprehensive Sediment & Bioassay Testing FSP.	
<i>Upriver and Multnomah Channel Sediment Evaluation and Field Sampling Plan Technical Approach</i>		Submitted 5/25/2007; EPA comments received 10/11/07. Superseded by the 11/5/2007 R3B Comprehensive Sediment & Bioassay Testing FSP.	
<i>Draft Round 3B Surface and Core Sediment FSP Preliminary Technical Memorandum</i>		Submitted 5/25/2007; EPA comments received 8/9/07. Superseded by the 11/5/2007 R3B Comprehensive Sediment & Bioassay Testing FSP.	
<i>Draft Round 3B Erosion Core Sediment FSP Technical Memorandum</i>	August 2007	Submitted 8/29/07; EPA comments received 10/11/07. Superseded by the 11/5/2007 R3B Comprehensive Sediment & Bioassay Testing FSP.	
<i>Round 3B QAPP Addendum 10 for Sediment Sampling</i>	November 2007	Submitted 12/17/2007. Need EPA approval of this QAPP Addendum.	
<i>Round 3 Sediment Trap Deployment Field Report</i>		Submitted 06/30/2011	



Deliverable <sup>1</sup>	Submittal Deadline <sup>2</sup>	Status/ Comments	EPA Comments Target Date
<b>FATE &amp; TRANSPORT</b>			
<i>Draft Chemical Fate &amp; Transport Model Development and Data Gaps Identification Report</i>	July 2007	Submitted 7/20/2007; EPA comments received 10/15/07. LWG response to comments submitted 1/8/2008.	
<i>F&amp;T Surface Sediment FSP – Addendum to 3B Sediment FSP</i>	December 2007	Submitted 12/10/2007; EPA comments received 1/2/08. 1/16/08 LWG agreed with EPA not to perform the sampling. Need EPA agreement that this deliverable is no longer needed.	
<i>Draft Bioaccumulation Modeling Report</i>		Submitted 7/27/2009	
<b>CULTURAL RESOURCES</b>			
Draft Cultural Resource Survey Report	12/16/2005	Submitted 12/16/2005	2/14/2006; EPA comments not time-critical at this point in the project
<b>BIOLOGICAL ASSESSMENT</b>			
<i>Preliminary Draft Site-Wide Biological Assessment - Electronic Version For Early EPA Team Review</i>	3/30/2012	Submitted 03/20/2012	6/29/2012
<i>Preliminary Draft Site-Wide Biological Assessment - Formal Publically Accessible Submittal</i>	3/30/2012	Submitted 03/30/2012	6/29/2012

Notes:

<sup>1</sup> - **Bolded Deliverables** are primary deliverables per Section XIX, Paragraph 4 of ASOC (EPA 2001a).

Unbolded Deliverables are secondary deliverables per Section XIX, Paragraph 5 of ASOC.

*Italicized Deliverables* do not have stipulated penalty amounts.

<sup>2</sup> - Listed Submittal Deadlines are for draft documents. Unless otherwise specified, all final documents are due to EPA 30 days following receipt of comments from EPA.

**Only deliverables due within the next four months are shown.**

Deliverable completed and approved by EPA.

Deliverable submitted to EPA and its partners.

Underlining indicates text change from last progress report.